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#23

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/747,029B

DATE: 04/24/2003

TIME: 13:55:45

Input Set : A:\INNS031.ST25.txt

Output Set: N:\CRF4\04242003\I747029B.raw

3 <110> APPLICANT: Union, Ann
4 Moereels, Henri
5 Meheus, Lydie
7 <120> TITLE OF INVENTION: PEPTIDES DESIGNED FOR THE DIAGNOSIS AND TREATMENT OF
RHEUMATOID
8 ARTHRITIS
10 <130> FILE REFERENCE: 11362.0031NPUS00 INNS:031
12 <140> CURRENT APPLICATION NUMBER: US 09/747,029B
13 <141> CURRENT FILING DATE: 2000-12-21
15 <150> PRIOR APPLICATION NUMBER: EP 00870195.5
16 <151> PRIOR FILING DATE: 2000-09-08
18 <150> PRIOR APPLICATION NUMBER: EP 99870280.7
19 <151> PRIOR FILING DATE: 1999-12-21
21 <160> NUMBER OF SEQ ID NOS: 24
23 <170> SOFTWARE: PatentIn version 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 18
27 <212> TYPE: PRT
28 <213> ORGANISM: Artificial sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Synthetic Peptides
34 <220> FEATURE:
35 <221> NAME/KEY: MISC_FEATURE
36 <222> LOCATION: (1)..(3)
37 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
39 <220> FEATURE:
40 <221> NAME/KEY: MISC_FEATURE
41 <222> LOCATION: (4)..(4)
42 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met
44 <220> FEATURE:
45 <221> NAME/KEY: MISC_FEATURE
46 <222> LOCATION: (5)..(5)
47 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or
Trp
49 <220> FEATURE:
50 <221> NAME/KEY: MISC_FEATURE
51 <222> LOCATION: (6)..(6)
52 <223> OTHER INFORMATION: Xaa represents Gly
54 <220> FEATURE:
55 <221> NAME/KEY: MISC_FEATURE
56 <222> LOCATION: (7)..(7)
57 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or
Trp
59 <220> FEATURE:

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P.8

60 <221> NAME/KEY: MISC_FEATURE
61 <222> LOCATION: (8)..(8)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/747,029B

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Input Set : A:\INNS031.ST25.txt
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62 <223> OTHER INFORMATION: Xaa represents Pro or Gly
 64 <220> FEATURE:
 65 <221> NAME/KEY: MISC_FEATURE
 66 <222> LOCATION: (10)..(10)
 67 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Gly
 69 <220> FEATURE:
 70 <221> NAME/KEY: MISC_FEATURE
 71 <222> LOCATION: (11)..(11)
 72 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
 74 <220> FEATURE:
 75 <221> NAME/KEY: MISC_FEATURE
 76 <222> LOCATION: (12)..(12)
 77 <223> OTHER INFORMATION: Xaa represents Citrulline
 79 <220> FEATURE:
 80 <221> NAME/KEY: MISC_FEATURE
 81 <222> LOCATION: (13)..(13)
 82 <223> OTHER INFORMATION: Xaa represents Gly
 84 <220> FEATURE:
 85 <221> NAME/KEY: MISC_FEATURE
 86 <222> LOCATION: (14)..(14)
 87 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or

Trp

89 <220> FEATURE:
 90 <221> NAME/KEY: MISC_FEATURE
 91 <222> LOCATION: (15)..(15)
 92 <223> OTHER INFORMATION: Xaa represent Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn,

Tyr,

93 Phe or Trp
 95 <220> FEATURE:
 96 <221> NAME/KEY: MISC_FEATURE
 97 <222> LOCATION: (17)..(17)
 98 <223> OTHER INFORMATION: Xaa represents Gly
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 101 <221> NAME/KEY: MISC_FEATURE
 102 <222> LOCATION: (18)..(18)
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Asn,

104 Phe, Trp
 106 <400> SEQUENCE: 1

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 109 1 5 10 15

112 Xaa Xaa
 116 <210> SEQ ID NO: 2
 117 <211> LENGTH: 15
 118 <212> TYPE: PRT
 119 <213> ORGANISM: Artificial sequence

121 <220> FEATURE:
 122 <223> OTHER INFORMATION: Synthetic Peptides
 125 <220> FEATURE:

126 <221> NAME/KEY: MISC_FEATURE
 127 <222> LOCATION: (1)..(1)
 128 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met

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Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

130 <220> FEATURE:
131 <221> NAME/KEY: MISC_FEATURE
132 <222> LOCATION: (2)..(2)
133 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
135 <220> FEATURE:
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137 <222> LOCATION: (3)..(3)
138 <223> OTHER INFORMATION: Xaa represents Gly
140 <220> FEATURE:
141 <221> NAME/KEY: MISC_FEATURE
142 <222> LOCATION: (4)..(4)
143 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
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146 <221> NAME/KEY: MISC_FEATURE
147 <222> LOCATION: (5)..(5)
148 <223> OTHER INFORMATION: Xaa represents Pro or Gly
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151 <221> NAME/KEY: MISC_FEATURE
152 <222> LOCATION: (7)..(7)
153 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp or Gly
155 <220> FEATURE:
156 <221> NAME/KEY: MISC_FEATURE
157 <222> LOCATION: (8)..(8)
158 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
160 <220> FEATURE:
161 <221> NAME/KEY: MISC_FEATURE
162 <222> LOCATION: (9)..(9)
163 <223> OTHER INFORMATION: Xaa represents Citrulline
165 <220> FEATURE:
166 <221> NAME/KEY: MISC_FEATURE
167 <222> LOCATION: (10)..(10)
168 <223> OTHER INFORMATION: Xaa represents Gly
170 <220> FEATURE:
171 <221> NAME/KEY: MISC_FEATURE
172 <222> LOCATION: (11)..(11)
173 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
175 <220> FEATURE:
176 <221> NAME/KEY: MISC_FEATURE
177 <222> LOCATION: (12)..(12)
178 <223> OTHER INFORMATION: Xaa represents Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn,
Tyr,
179 Phe or Trp
181 <220> FEATURE:
182 <221> NAME/KEY: MISC_FEATURE
183 <222> LOCATION: (14)..(14)
184 <223> OTHER INFORMATION: Xaa represents Gly
186 <220> FEATURE:
187 <221> NAME/KEY: MISC_FEATURE
188 <222> LOCATION: (15)..(15)
189 <223> OTHER INFORMATION: Xaa represents Tyr, His, Lys, Arg, Asp, Glu, Ser, Thr, Gln,

Asn,

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/747,029B

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TIME: 13:55:45

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

190 Phe or Trp
192 <400> SEQUENCE: 2
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195 1 5 10 15
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199 <211> LENGTH: 14
200 <212> TYPE: PRT
201 <213> ORGANISM: Artificial sequence
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204 <223> OTHER INFORMATION: Synthetic Peptides
207 <220> FEATURE:
208 <221> NAME/KEY: MISC_FEATURE
209 <222> LOCATION: (1)..(1)
210 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
212 <220> FEATURE:
213 <221> NAME/KEY: MISC_FEATURE
214 <222> LOCATION: (2)..(2)
215 <223> OTHER INFORMATION: Xaa represents Gly
217 <220> FEATURE:
218 <221> NAME/KEY: MISC_FEATURE
219 <222> LOCATION: (3)..(3)
220 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
222 <220> FEATURE:
223 <221> NAME/KEY: MISC_FEATURE
224 <222> LOCATION: (4)..(4)
225 <223> OTHER INFORMATION: Xaa represents Pro or Gly
227 <220> FEATURE:
228 <221> NAME/KEY: MISC_FEATURE
229 <222> LOCATION: (6)..(6)
230 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp or Gly
232 <220> FEATURE:
233 <221> NAME/KEY: MISC_FEATURE
234 <222> LOCATION: (7)..(7)
235 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
237 <220> FEATURE:
238 <221> NAME/KEY: MISC_FEATURE
239 <222> LOCATION: (8)..(8)
240 <223> OTHER INFORMATION: Xaa represents Citrulline
242 <220> FEATURE:
243 <221> NAME/KEY: MISC_FEATURE
244 <222> LOCATION: (9)..(9)
245 <223> OTHER INFORMATION: Xaa represents Gly
247 <220> FEATURE:
248 <221> NAME/KEY: MISC_FEATURE
249 <222> LOCATION: (10)..(10)
250 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
252 <220> FEATURE:
253 <221> NAME/KEY: MISC_FEATURE
254 <222> LOCATION: (11)..(11)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/747,029B

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Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

255 <223> OTHER INFORMATION: Xaa represents Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn, Tyr,
 256 Phe or Trp
 258 <220> FEATURE:
 259 <221> NAME/KEY: MISC_FEATURE
 260 <222> LOCATION: (13)..(13)
 261 <223> OTHER INFORMATION: Xaa represents Gly
 263 <220> FEATURE:
 264 <221> NAME/KEY: MISC_FEATURE
 265 <222> LOCATION: (14)..(14)
 266 <223> OTHER INFORMATION: Xaa represents Tyr, His, Lys, Arg, Asp, Glu, Ser, Thr, Gln, Asn,
 Asn,
 267 Phe or Trp
 269 <400> SEQUENCE: 3
 W--> 271 Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
 272 1 5 10
 275 <210> SEQ ID NO: 4
 276 <211> LENGTH: 18
 277 <212> TYPE: PRT
 278 <213> ORGANISM: Artificial sequence
 280 <220> FEATURE:
 281 <223> OTHER INFORMATION: Synthetic Peptides
 284 <220> FEATURE:
 285 <221> NAME/KEY: MISC_FEATURE
 286 <222> LOCATION: (1)..(1)
 287 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
 289 <220> FEATURE:
 290 <221> NAME/KEY: MISC_FEATURE
 291 <222> LOCATION: (2)..(2)
 292 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
 294 <220> FEATURE:
 295 <221> NAME/KEY: MISC_FEATURE
 296 <222> LOCATION: (3)..(3)
 297 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
 299 <220> FEATURE:
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 301 <222> LOCATION: (4)..(4)
 302 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met
 304 <220> FEATURE:
 305 <221> NAME/KEY: MISC_FEATURE
 306 <222> LOCATION: (5)..(5)
 307 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
 or Trp
 309 <220> FEATURE:
 310 <221> NAME/KEY: MISC_FEATURE
 311 <222> LOCATION: (6)..(6)
 312 <223> OTHER INFORMATION: Xaa represents Gly
 314 <220> FEATURE:
 315 <221> NAME/KEY: MISC_FEATURE
 316 <222> LOCATION: (7)..(7)
 317 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
 or Trp
 319 <220> FEATURE:

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/747,029B

DATE: 04/24/2003
TIME: 13:55:46

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,7,8,10,11,12,13,14,15,17,18
Seq#:2; Xaa Pos. 1,2,3,4,5,7,8,9,10,11,12,14,15
Seq#:3; Xaa Pos. 1,2,3,4,6,7,8,9,10,11,13,14
Seq#:4; Xaa Pos. 1,2,3,4,5,6,7,8,10,11,12,13,15,16,17,18
Seq#:5; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,13,14,15,16
Seq#:6; Xaa Pos. 1,2,3,4,6,7,8,9,11,12,13,14
Seq#:7; Xaa Pos. 11,12
Seq#:8; Xaa Pos. 12
Seq#:9; Xaa Pos. 11,12
Seq#:10; Xaa Pos. 11,12
Seq#:11; Xaa Pos. 11,12
Seq#:12; Xaa Pos. 11,12
Seq#:13; Xaa Pos. 7,8
Seq#:14; Xaa Pos. 7,8
Seq#:15; Xaa Pos. 7,8
Seq#:16; Xaa Pos. 8
Seq#:17; Xaa Pos. 12
Seq#:18; Xaa Pos. 8
Seq#:19; Xaa Pos. 8
Seq#:20; Xaa Pos. 8
Seq#:21; Xaa Pos. 8
Seq#:22; Xaa Pos. 10
Seq#:23; Xaa Pos. 2,3,4,5,6,7
Seq#:24; Xaa Pos. 2,3,4,5

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7